US Army Corps of Engineers ®

Construction Bulletin

No. 98-1 Issuing Office: CEMP-EC Issue Date: 2/23/98 Exp. Date: 31 DEC 2000

CEMP-E

Subject: Technical Analysis and Audit Support for Construction Contract Management

Applicability: GUIDANCE

1. Purpose. This bulletin provides information and guidance on preparation of the technical analysis and its use for audit support.

2. References.

a. NOTICE TO DCAA AUDITOR FOR PRICING CONSTRUCTION EQUIPMENT COSTS (Enclosure).

b. FAR Part 36.203, dated October 21, 1997.

c. FAR Part 15.404. Proposal Analysis, dated September 30, 1997 (Formerly Part 15.805).

d. EFARS Part 52.231-5000. Equipment Ownership and Operating Expense Schedule.

e. Construction Bulletin No. 90-18, dated 8/6/90, Subject: Requirement for Preparation of Technical Analyses of Proposals Exceeding $100,000.

3. The contracting officer (or administrative contracting officer) is responsible for evaluating the reasonableness of offered prices using various proposal analysis techniques. These techniques include price, cost and technical analyses. Price analysis is always conducted regardless of whether submission of cost or pricing data is required. Cost analysis is always conducted when cost or pricing data are required and may be conducted to evaluate other than cost or pricing data to determine cost reasonableness or cost realism. Technical analysis, to some extent, is almost always conducted on proposals for construction work.

4. The objective of technical analysis is to provide recommendations concerning the reasonableness of the contractor's proposal for use by the contracting officer, negotiator or auditor. The technical analysis, although not expressed in terms of cost, should address cost implications resulting from the technical approach to accomplishing the construction work. A good technical analysis of the contractor's proposal is the backbone of an equitable agreement negotiation. It is an assessment of the need for and reasonableness of the contractor's proposed resources and work methods, assuming reasonable economy and efficiency. FAR Part 15.404-1(e), provides the minimum assessment areas to be addressed in the technical analysis. It further indicates inclusion of any other data that may be pertinent to an assessment of an offeror's ability to accomplish the technical requirements or to the cost or price analysis of the services being proposed. The following listed items (a. through l.) identify more specific information that should be included for construction contracts. This information was originally contained in reference 1.e. and is repeated here because it is still pertinent and represents good business practice.

a. Description of the proposal and items analyzed.

b. Data used in the analysis, and how used.

c. Constraints such as time limitations, lack of data, or information requested, but not provided.

d. Data requested and received from the contractor. Discussion of how the analysis was conducted in the absence of required data.

e. Detailed item by item description of the analysis of the proposal. (Refer to paragraph 4.)

f. Marked-up copy of the proposal showing analysis results.

g. Estimated impact of the change on time.

h. Analysis of field office overhead. (Refer to paragraph 5)

I. Identification of unacceptable items that are not part of the scope of work.

j. Information concerning other contract actions having a bearing on the proposal.

k. Evaluation of judgmental aspects for necessity and reasonableness.

l. Statement of findings with recommendations and supporting rationale.

5. The technical analysis is an important tool for the auditor to facilitate a thorough audit. A detailed item by item analysis of the contractor's proposal is essential to reaching agreement on the scope of work. Merely questioning cost elements without an in depth analysis will normally not resolve differences. Sometimes an auditor will not audit elements because they have already been questioned in the technical analysis. Auditors should be asked specifically to check particular elements. Supporting documentation should address agreement or disagreement on the following for each item of the proposal:

a. Labor - Proposed crew size, type and number of skilled and unskilled labor, supervision, production rates, labor hour, work shifts, work week, overtime and shift differentials. Location, climatic conditions, and type of construction should be taken into account.

b. Materials and Supplies - Proposed quantities and types of materials, supplies and installed equipment. This should include the quantities shown for waste and scrap. Escalation of prices should be checked as well as shipping costs determinations.

c. Construction Equipment and Plant - Proposed equipment types and spreads, production rates and hours used. Comment on whether equipment is owned, rented, or leased and whether on site or to be mobilized. Review estimates for small tools and miscellaneous items. Comment on basis for equipment costs, e.g., actual cost, rental rates or the Equipment Ownership and Operating Expense Schedule (EP1110-1-8). Reference 2.d. is the EFARS clause that prescribes use of this Schedule. Use of rental equipment should be justified. Consider rationale for concurrent use or standby status of equipment. (Refer to the enclosure for further details on the use of the Schedule and review of equipment pricing by auditors. It is highly recommended that this enclosure be made an attachment to the technical analysis and provided to the auditor to assist in the pricing of construction equipment costs).

6. The analysis of items included in the proposed field office overhead includes identifying fixed and variable costs. Fixed costs are not dependent on the dollar volume of work being performed and include nonrecurring costs (sunk costs which occur only one time in the life of the contract) and recurring costs (costs which remain generally constant but which recur on a scheduled basis). Variable costs tend to vary, directly or indirectly with the dollar volume of work performed. Field overhead costs should be analyzed on an item-by-item basis for the particular project using techniques similar to those used in analyzing direct costs. A flat rate calculation, although simple, is not an accurate method of forecasting field office overhead expense because it is based on the assumption that the relationship between direct and field office overhead costs remains relatively constant during the life of a project and from project to project. Home office overhead or G&A should be verified by the auditor.

7. The relationship between the government estimate and the technical analysis continues to be a subject of discussion. Depending upon the circumstances, it may be appropriate to use data from the government estimate in performing the technical analysis. However, the government estimate IS NOT a technical analysis of the contractor's proposal. The recent FAR 36.203 change in threshold requirements for an Independent Government Estimate, (now $100,000), will require the application of streamlined cost, price and technical analyses techniques to the smaller actions to determine price, cost and scope realism in the development of prenegotiation objectives. The level of analyses should be tailored to the complexity and magnitude of the particular contract action to mitigate risks yet not overly complicate the acquisition.

8. The technical analysis should be marked "For Official Use Only" since it forms a part of the documentation for the prenegotiation objectives and must not be provided to the contractor before the contract action is awarded.

9. This Construction Bulletin was coordinated with the following HQUSACE organizations: Office of the Principal Assistant Responsible for Contracting (CEPR-ZA), Directorate of Civil Works, Engineering Division (CECW-EC) and Operations, Construction and Readiness Division (CECW-OC) and the Audit Office (CEAO).

Encl

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NOTICE TO DCAA AUDITOR FOR PRICING CONSTRUCTION EQUIPMENT COSTS

All U.S. Army Corps of Engineers contracts within the U.S. include a special contract requirement derived from FAR 31.105 pricing policy. Unless the contractor can accurately determine BOTH the actual hourly operating cost for at least a class of equipment (e.g., CAT D-8 Dozers), and the actual hourly ownership cost for the specific piece of owned equipment to be used for the work in the proposal, the hourly rates shall be determined using the methodology described in the Corps of Engineers Equipment Ownership and Operating Expense Schedule. (EP 1110-1-8). The manual corresponding to the appropriate region of work location and current at the time of contract award is to be used. (Refer to DCAA Audit Manual, paragraph 12-802.5.)

2. Normally, construction contractors can not accurately account for actual costs for owned equipment. (Actual cost accounting is more common for marine and dredging equipment).

3. When the Schedule applies, consider the following for OWNED equipment:

a. Equipment costs are to be treated as direct costs.

b. Only equipment in sound working condition, available for use, and to be used directly for the work in the proposal can be considered. (Costs for equipment to be used elsewhere, laid up in the contractor's equipment yard or broken should be identified and eliminated).

c. Equipment costs allowed for in the Schedule must be identified for elimination from the contractor's other direct and indirect costs if included in the proposal. Some examples of these costs that should be eliminated include Facilities Capital Cost of Money (FCCM), depreciation, mechanics on-site and at the home shop, shop expenses for field and home offices, mechanic's trucks and lube trucks and fuel, oil, grease, and parts costs. Examples of costs that may be allowable in other direct or indirect costs include license fees, storage and insurance, job site security, inspection fees and highway permits. (Reference is made to Chapter 2 of the Schedule). Reasonable costs for indirect home office personnel vehicles may be included in the G&A overhead pool if allowable under FAR 31.205-6(m)(2). However, excessive costs for luxury type vehicles should be adjusted to better reflect a reasonable price for vehicles adequate to accomplish the job.

d. Verify and list age, year of acquisition, and acquisition costs (subtracting the original tire cost which is included in the hourly operating cost) for each proposed piece of equipment. Appropriate hourly rates can then be determined by the negotiator using the Schedule.

4. If RENTED equipment is proposed, consider the following:

a. In general, paragraphs 3.a., b., and c. above apply. Costs for owned equipment not directly used on the work are not allowed and G&A rates should be adjusted as appropriate.

b. Rates for equipment rented from an organization under common control or a lease-purchase or lease-buyback arrangement will be determined from the Schedule, unless the common controlled organization normally rents out to unaffiliated lessees at this price. Eliminate tiered markups for overhead and profit.

c. Hourly operating rates, adjusted to remove repair costs, can be determined for rental equipment using the Schedule. Costs for major repairs and overhauls of rentals are not allowed.

5. Technical assistance on any questions concerning the data development methodology, interpretation, and use of the Schedule may be obtained by contacting the Cost Engineering Branch, Walla Walla District, Northwestern Division at (509) 527-7511.